

Title (en)
POLYCYCLIC DYES.

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Application
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Abstract (en)
[origin: EP0363034A2] A process for the preparation of a polycyclic dye of Formula I: <CHEM> by reacting a phenyltartronic acid of Formula II: <CHEM> wherein W is - NR<1>R<2> or - OR<3>; R<3> is H or an optionally substituted alkyl, alkenyl, cycloalkyl or aralkyl group; R<1> & R<2> are each independently H or an optionally substituted alkyl, alkenyl, cycloalkyl, aralkyl or aryl group; or R<1> & R<2> together with the nitrogen atom to which they are attached form a heterocyclic ring; or R<1> or R<2> together with the nitrogen atom and the adjacent carbon atom of Ring B form a heterocyclic ring; and Ring B is unsubstituted, apart from the group W, or is substituted by one or two further groups; with either (a) a compound of Formula III: <CHEM> wherein, Z<1> & Z<2> are each independently - O -, - S - or - NY - in which Y is H, an optionally-substituted hydrocarbon group or an acyl group; X<1> & X<2> are each independently selected from H, halogen, cyano, alkyl, aryl, carbamoyl, sulphamoyl, COOH and carboxylic acid ester; & Ring A is unsubstituted or is substituted by from one to three groups; or (b) a compound of Formula IV: <CHEM> wherein Z<1>, Z<2>, X<1> and X<2> are as hereinbefore defined; and oxidation of the intermediate compound to dehydrogenate the peripheral heterocyclic rings. The invention also comprises a product of the aforementioned process which is suitable for the colouration of polyester textile material in shades from green through to reddish-blue of the formula: <CHEM> wherein: X<1> & X<2> each independently is H, cyano, alkyl, aryl, carbamoyl, sulphamoyl, COOH or carboxylic acid ester; Z<1> & Z<2> each independently is - O -, - S - or - NY - in which Y is H, an optionally-substituted hydrocarbon group or an acyl group; R<1> & R<2> each independently is H or an optionally substituted alkyl, alkenyl, cycloalkyl, aryl or aralkyl group; or R<1> & R<2> together with the N atom to which they are attached, form a heterocycle; R<4> & R<5> each independently is H, halogen or an optionally substituted alkyl, alkenyl or alkoxy group; or R<1> & R<4> together with the N atom and the two carbon atoms in Ring B to which they are attached form a heterocycle fused to Ring B; or R<2> & R<5> together with the N atom and the two carbon atoms in Ring B to which they are attached form a heterocycle fused to Ring B; R<6> is H, halogen, an optionally substituted alkyl or alkoxy group or a group NR<1>R<2> in which each of R<1> and R<2> independently is as hereinbefore defined; R<7> & R<8> each independently is H, halogen or an optionally substituted alkyl, alkenyl or alkoxy group; or R<1> & R<7> together with the N atom and the two carbon atoms in Ring A to which they are attached form a heterocycle fused to Ring A; or R<2> & R<8> together with the N atom and the two carbon atoms in Ring A to which they are attached form a heterocycle fused to Ring A; and where R<6> is NR<1>R<2>, this may be the same as or different from the NR<1>R<2> group present in Ring B.

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• [A] FR 2343785 A1 19771007 - ICI LTD [GB]
• [A] EP 0146269 A2 19850626 - ICI PLC [GB]
• [A] EP 0033583 A1 19810812 - ICI PLC [GB] & GB 2068402 A 19810812 - ICI LTD

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